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NASA Satellite Sheds New Light On the La Nina Phenomenon

Research scientists using data from the Tropical Rainfall Measuring Mission (TRMM) satellite, a joint U.S./Japanese mission, are shedding new light on the phenomenon known as La Nina. TRMM research team members have successfully retrieved sea-surface temperature data from the TRMM Microwave Imager (TMI) instrument onboard the spacecraft.

This temperature data is giving scientists new insight into the complex evolution of the La Nina event — the TMI is the only spaceborne microwave instrument observing sea-surface temperature in the tropics. The images show changes in sea-surface temperature and ocean current movement and the dissipation of El Nino. While it is too early to draw definite conclusions, the results to date appear to confirm the onset of La Nina type conditions.

“TMI is an all-weather measuring instrument that can see through clouds,” said Dr. David Adamec, oceanographer at the Goddard Space Flight Center. “The standard instrument, used to measure sea-surface

temperature, must contend with clouds and atmospheric aerosols. Clouds block the flow of data, yet an uninterrupted consistent data stream is crucial for long-term climate study.”

Acquiring quality sea-surface temperature data via a microwave scanner has been a long-term aspiration among oceanographers for more than a decade, when the last microwave imager ceased operations.

In addition, none of the previously existing microwave scanners had the capability of the TRMM Microwave Imager. Ideally, this information will be used for the improvement of weather forecasting, anomalous weather study, and a better understanding of ocean current alteration.

The TRMM Microwave Imager instrument was provided by NASA. TRMM was developed jointly by NASA and NASDA and launched last November from NASDA’s Tanegashima Space Center, Japan.

Images are available at URL: <http://www.eorc.nasda.go.jp/TRMM>

University of Maryland, Eastern Shore Students Participate in Bridge Program

Through a coordinated effort, the NASA Goddard Space Flight Center and the University of Maryland, Eastern Shore (UMES) developed the Bridge program to provide incoming freshmen students hands-on experiences in engineering and earth science activities.

For five weeks, 17 students have spent two afternoons a week at the Wallops Flight Facility. The students toured operations and test facilities, learned about aeronautics, designed, constructed and launched gliders and model rockets, observed Wallops launch activities, and learned about our coastal environment.

Efforts To Recover Soho Spacecraft Continue

NASA and European Space Agency (ESA) engineers are continuing their efforts to contact the Solar and Heliospheric Observatory (SOHO) spacecraft.

Meanwhile, the NASA/ESA investigation board concentrates its inquiry on three errors that appear to have led to the interruption of communications with SOHO on June 24. Officials remain hopeful that recovery of SOHO may be possible.

The SOHO Mission Interruption Joint ESA/NASA Investigation Board has determined that the first two errors were contained in preprogrammed command sequences executed on ground system computers, while the last error was a decision to send a command to the spacecraft in response to unexpected telemetry readings. The spacecraft is controlled by a joint ESA/NASA Flight Operations Team based at Goddard.

ESA and NASA engineers believe the spacecraft is currently spinning with its solar panels nearly edge-on towards the Sun, and thus not generating any power. Since the spacecraft is spinning around a fixed axis, as the spacecraft progresses in its orbit around the Sun, the orientation of the panels with respect to the Sun should gradually change. The orbit of the spacecraft and the seasonal change in the spacecraft-Sun alignment should result in the increased solar illumination of the spacecraft solar arrays over the next few months.

Information on SOHO, including status reports, is available on the internet at: <http://sohowww.nascom.nasa.gov/>

Wallops Shorts.....

Pradeep Sinha, formerly Executive Officer for Management Operations (Code 200) and Branch Head of the Wallops Facility Management Branch (Code 228), has been named Chief of the Safety Environmental and Security Office (Code 205). Presently, **Bill Phillips** is the Acting-Head of Code 228. Sinha will remain Executive Officer for Wallops Code 200 until a replacement is named.

Fire Department

Wallops Fire Department personnel answered a request for assistance from Accomack County 911. EMTs responded with a rescue and hazmat unit to a construction accident resulting in the entrapment of two people at Captain’s Cove.



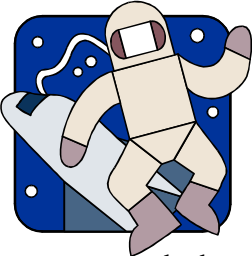
Marine Science Consortium Instructor, Doug Lobingier (right) demonstrates to University of Maryland, Eastern Shore Bridge students how a nansenmeter is used to take water samples in Cockle Creek.

Special Events at the Visitor Center During August

August 1 and 15 — A model rocket launch will be held at 1 p.m. Models of various rockets will be launched. Model rocketeers are invited to bring their own rockets and launch them. The launch will be canceled if it is raining or winds exceed 18 mph.

Daily — “Puppets in Space,” a 10-minute puppet show will be presented at the Visitor Center, 2 p.m. Monday through Friday and 11 a.m. on Saturdays and Sundays. Puppet astronauts and Sam the monkey will explore space flight, including the space suit. An eight-minute version of the film “Astrosmites” follows the puppet show.

Sundays — “Humans in Space” is the subject of a 1 p.m. program for children of all ages. The 30-minute program looks at living and working in space, including a review of the astronauts’ culinary delights and their wardrobe. The program is followed by a hands-on children’s activity. Children will be given the opportunity to create their own “space helmet”.




The Visitor Center, part of the Robert L. Krieger Education Complex is open daily from 10 a.m. to 4 p.m., through Labor Day.

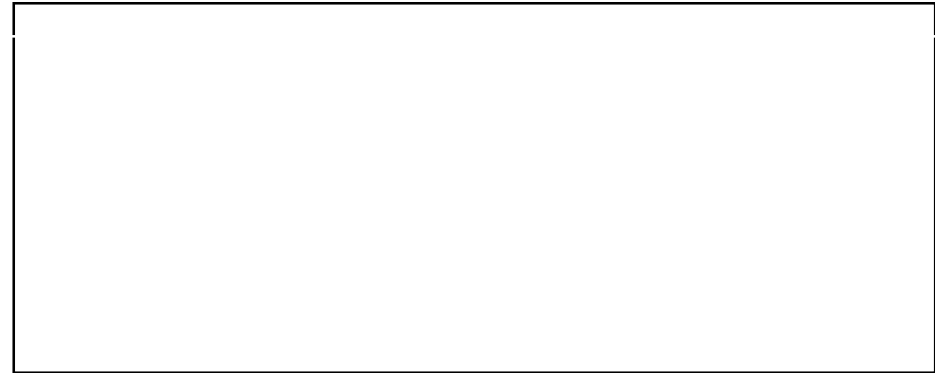
NASA Day at Kings Dominion
Headquarters, Goddard Space Flight Center and Langley Research Center employees are invited to participate in NASA Day at Kings Dominion on August 1.

Ticket prices are \$20 for adults (ages 13 and up), \$15 for children (ages 3-12) and children under 3 are free. Cost includes admission and a special picnic lunch for NASA employees and their guests at the pavilion from noon to 2 p.m. Lunch includes hot dogs, hamburgers, fried chicken, coleslaw, fresh fruit, soft drinks, iced tea and ice cream.

First Spaceflight Academy Successful



Building and launching model rockets (photo) was only part of the fun for 28 children participating in the Spaceflight Academy held at Wallops last week. The camp was co-sponsored by the College of Sciences, Old Dominion University, the Virginia Space Flight Center and NASA. The Navy AEGIS provided dorms and meals for the campers and instructors.



NEWMAST teachers prepare model rockets for launch.

NEWMAST Workshop Held at Wallops

NASA Educational Workshops for Math, Science and Technology Teachers (NEWMAST) was held July 5 through July 18, 1998 at Goddard Space Flight Center.

The 25 teachers participating in the program came from Connecticut, Maine, Massachusetts, New Jersey, New Hampshire, Pennsylvania, New York, South Carolina, Tennessee and Vermont.

The teachers spent the first week of the workshop at Greenbelt and traveled to Wallops for the second week. The workshop provided NASA mission based programs that introduced the application of math, science, engineering and technology for use in student learning activities. The teachers were given alternatives for a wide range of lesson designs.

While at Wallops, the teachers were given wave and rain tank demonstrations, watched an ozonesonde balloon launch and received information on remote sensing of phytoplankton and laser/beach mapping and rocketry. They constructed and launched hot air balloons and model rockets, and participated in a simulated Pegasus launch in the Range Control Center and developed eight SEM proposals.

FERS Transfer Briefing

July 30, 1 to 4 p.m.
Building E-2
A three-hour session will be offered at Wallops and will cover factors that should be considered if switching retirement systems. These will include: age and service requirements, Thrift Savings Plan and Social Security differences, survivor benefits and more.

The workshop is Center funded with no cost to the Directorates. Training requests should be submitted to Code 114. Code 800 individuals should route their requests through Sherry Kleckner, x1204. For additional information on the course, contact Laura Potler, Human Resources Development Office, x66-4853.

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